Key to Icon

 Web site.*

459.01 Introduction

Visual perception is an important component of environmental quality that can be affected by transportation projects. The location, design, and maintenance of highway, ferry, rail, and aviation facilities may adversely or positively affect visual features of the landscape. Concern over adverse visual impacts can be a major source of project opposition. This chapter focuses on highway projects, but the same, or similar, requirements apply to other transportation modes and facilities (see **Section 459.07**). For related information on historic and cultural resources, see **Chapter 456**.

Because of the public nature and visual importance of transportation projects, both negative and positive visual impacts must be adequately assessed and considered during project development. The goal of the project is to fit the facility into the surrounding landscape in harmony with the visual resource. The project should minimize the impact and enhance the visual environment.

In discussing and reviewing the visual impacts of a highway project, two views must be considered: the view from the road and the view toward the road. Americans have repeatedly ranked pleasure driving on scenic roads as one of their favorite pastimes. Researchers have also shown that the view from the road is the basis for much of what people know about the everyday environment and their mental image of the landscape. A positive visual experience by motorists can also contribute to traffic calming.

Projects must be carefully planned to ensure that the facility blends into the community and its environment. Pleasing vistas for travelers should not be developed at the expense of views from surrounding areas.

* Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the ESO home page: http://www.wsdot.wa.gov/environment/

(1) Summary of Requirements

A Visual Impacts Analysis must be completed for all projects that change the roadside character, including changes in road alignment, expansion of the roadway, new intersections or ferry terminal improvements, increased lighting, or removal of considerable vegetation.

During project development, visual impacts, including aesthetics, light, glare, and night sky impacts, should be considered for all project alternatives by evaluating views from the road and views toward the road that will be in existence during the construction phase and the operational phase. The Visual Impacts Discipline Report is developed from a detailed analysis of the project area, including a photographic log of the affected viewshed. The report must include a qualitative and quantitative analysis of all significant views from and toward the facility throughout the project length. The number of views needed depends upon the geographic extent of the project, its setting in the landscape, the effects on the identified viewer groups, and their sensitivity to changes in the view. Mitigation measures and opportunities must be outlined through design using Federal Highway Administration (FHWA) criteria.

Project alternatives will need to be sufficiently developed for a complete analysis to occur. The person doing the Visual Impacts Analysis must have an understanding of the changes that each alternative will have on the visual environment. Large cuts or fills, walls, bridges, and horizontal and vertical alignments must be described and analyzed.

The findings and recommendations in the Visual Impacts Discipline Report are used in a Documented Categorical Exclusion (DCE), Environmental Assessment (EA), or Environmental Impact Statement (EIS).

An abbreviated Visual Impacts Analysis is to be completed by a disciplinary expert for the Environmental Review Summary and SEPA checklist. This process will evaluate the potential for impacts to the visual resource without an in-depth analysis. Typically, mitigating measures that would avoid or minimize impacts to the visual resource are outlined in these documents.

All Visual Impacts Analysis discipline reports should be written by, or coordinated through, the region Landscape Architect or the Headquarters Roadside and Site Development Unit for regions without a Landscape Architect.

(2) Abbreviations and Acronyms

None specific to visual impacts. See **Appendix A** for a general list of abbreviations and used acronyms in the EPM.

(3) Glossary

See **Appendix B** for a general glossary of terms used in the EPM.

Community Enhancement Areas – Features such as community gateways, roadside parks, viewpoints, agricultural uses, and historic markers.

Corridor – Road and highway right-of-way and the adjacent area that is visible from and extending along the highway. The distance the corridor extends from the highway could vary with different intrinsic qualities.

Intrinsic quality – Scenic, historic, recreational, cultural, archaeological, or natural features that are considered representative, unique, irreplaceable, or distinctly characteristic of an area

Landscape Unit – An area or volume of distinct landscape character that forms a spatially enclosed unit at ground level, differentiated from other areas by its slope and its pattern of land cover. A unique segment of the landscape.

Scenic Byway – Public road having special scenic, historic, recreational, cultural, archaeological, and/or natural qualities that have been recognized as such through legislation or some other official declaration for its scenic, historic, recreational, cultural, archaeological, or natural qualities.

Scenic Corridor Management Plan – Written document that specifies the actions, procedures, controls, operational practices, and administrative strategies needed to maintain the scenic, historic, recreational, cultural, archaeological, and natural qualities of a scenic byway.

Viewshed – All the surface areas visible from an observer's viewpoint.

Viewer Group – Classes of viewers differentiated by their visual response to the facility and its setting. Response is affected by viewer activity, awareness, and values.

Viewer Sensitivity – The viewer's variable receptivity to the elements within the environment they are viewing. Sensitivity is affected by viewer activity and awareness.

Visual Element – A particular feature of the visual environment.

Visual Function – The component of a transportation project that is designed and experienced primarily from a visual perspective; includes positive guidance and navigation, distraction screening, corridor continuity, roadway and adjacent property buffering, and scenic view preservation.

Visual Quality – Character of the landscape, which generally gives visual value to a setting.

459.02 Applicable Statutes and Regulations

This section lists the primary statutes and regulations applicable to visual impacts. See **Appendix D** for a list of statutes referenced in the EPM.

(1) Federal

The Federal statutes on visual impacts are codified under several programs, described below. For general information on highway-related legislation, see FHWA's web site:

http://www.fhwa.dot.gov/legsregs/legislat.html

(a) National Environmental Policy Act

The National Environmental Policy Act (NEPA), 42 USC Section 4321, requires that all major actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations such as impacts related to aesthetics and visual quality are

given due weight in decision-making. NEPA Section 101(b)(2) states that it is the "continuous responsibility" of the federal government to "use all practicable means" to "assure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings." For details on NEPA procedures, see **Chapter 410** and **Chapter 411**.

Federal implementing regulations are at 23 CFR 771 (FHWA) and 40 CFR 1500-1508 (CEQ). According to the CEQ implementing regulations, environmental analysis is to consider impacts on urban quality, historic and cultural resources, and the design of the built environment" (Section 1502.6). Agencies shall "identify methods and procedures . . . to insure that presently unquantified environmental amenities and values may be given appropriate consideration" (Section 1507.2).

(b) Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)

SAFETEA-LU (2005) authorizes the Federal surface transportation programs for highways, highway safety, and transit for the five-year period from 2005 to 2009. Eligible activities include: acquisition of scenic easements and scenic or historic sites, scenic or historic highway programs, landscaping and other scenic beautification, historic preservation, preservation of abandoned railway corridors (including the conversion and use for pedestrian or bicycle trails), control and removal of outdoor advertising.

To implement the Scenic Byways Program created under 23 U.S.C. 101(g)-133 (e), FHWA has set criteria for designating scenic byways, based upon their scenic, historic, recreational, cultural, archaeological, and/or natural intrinsic qualities. For details, see:

http://www.fhwa.dot.gov/

Click on FHWA Programs, then Environment, then Environmental Guidebook, then Scenic Byways.

Or by direct link:

http://www.fhwa.dot.gov/environment/guidebook/chapters/v2ch14.htm

(c) Highway Beautification Act

The Highway Beautification Act of 1965 (23 CFR-750) was enacted to provide effective control of outdoor advertising and junkyards, protect public investment, promote the safety and recreational value of public travel and preserve natural beauty, and provide landscapes and roadside development reasonably necessary to accommodate the traveling public. Implementing procedures are set forth in 23 CFR 750, 751, and 752.

(d) Historic Preservation Act

Implementing regulations for Section 106 of the Historic Preservation Act of 1966 (see **Section 456.02**), adopted in 1976, define criteria of adverse effect (Section 800.8) to include the "introduction of visual, audible, or atmospheric elements that are out of character with the property or alter its setting."

(e) DOT Act, Section 4(f)

This act declares a national policy to make a special effort to preserve the natural beauty of the countryside and public park and recreation sites, wildlife and waterfowl refuges, and historic sites." (See **Chapter 455** and **Section 411.09** for details on Section 4(f).)

(f) Wild and Scenic Rivers Act

This act, as amended, directs that "each component of the national wild and scenic rivers system shall be administered in such manner as to protect and enhance the values which caused it to be included, without, insofar as it is consistent therewith, limiting other uses that do not substantially interfere with public use and enjoyment of these values. In such administration, primary emphasis shall be given to protecting its esthetic, scenic, historic, archaeologic, and scientific features." (See **Chapter 453** for information on wild and scenic rivers in Washington.)

(2) State

(a) State Environmental Policy Act

The State Environmental Policy Act (SEPA), requires that all major actions sponsored, funded, permitted, or approved by state and/or local agencies undergo planning to ensure environmental considerations such as impacts related to aesthetics and visual quality are given due weight in decision-making. State implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT). For details on SEPA procedures, see **Chapter 410** and **Chapter 411**.

(b) Highway Beautification Act

Washington's Highway Beautification Act (RCW 47.40.010) adopted in 1961, declared improvement and beautification of any state highway right-of-way to be a "proper highway purpose." The act specifically mentions the following improvements: "planting and cultivating of any shrubs, trees, hedges or other domestic or native ornamental growth; the improvement of roadside facilities and view points; and the correction of unsightly conditions."

(c) Open Space Land Preservation

In RCW 84.34, the legislature declared that "it is in the best interest of the state to maintain, preserve, conserve and otherwise continue in existence adequate open space lands for the production of food, fiber and forest crops, and to assure the use and enjoyment of natural resources and scenic beauty for the economic and social well-being of the state and its citizens." Open space was defined as including any land area that would preserve visual quality along highway, road, and street corridors or scenic vistas. One of the criteria to be used in determining open space classification for current use or conservation futures is whether granting this classification would preserve visual quality along highway, road, and street corridors or scenic vistas (RCW 84.34.037).

459.03 Policy Guidance

(1) Transportation Commission

The Transportation Commission's Policy Catalog contains a specific policy on visual quality. Policy 6.3.6 is to "protect and enhance the visual quality of Washington's transportation corridors and facilities" and "identify outstanding vistas visible from transportation corridors, then protect, restore, and enhance them."

(2) Other WSDOT Guidance

Further policy and standards guidance related to aesthetics and visual quality is available in three WSDOT publications: the *Roadside Manual* (M 25-30), particularly Section 500, Visual Functions; the *Roadside Classification Plan*, which provides a framework for roadside management; and a WSDOT Design Manual companion document entitled *Understanding Flexibility in Transportation Design*. The first two documents are available online at:

http://www.wsdot.wa.gov/

Click on Maps & Data, then Engineering Publications, then On-Line Technical Manual Library and find titles of manuals.

Or by direct link:

http://www.wsdot.wa.gov/fasc/engineeringpublications/Manuals/RoadsideManual.pdf

Understanding Flexibility in Transportation Design is available online at:

http://www.wsdot.wa.gov/eesc/design/Urban/Default.htm

459.04 Interagency Agreements

None. See **Appendix E** for a complete index to interagency agreements referenced in the EPM.

459.05 Technical Assistance

(1) WSDOT Discipline Report Checklist

A Visual Impacts Discipline Report is needed for an EIS project when the Project Manager, in consultation with any federal lead agencies, conclude (based on discipline expert advice and a preliminary Visual Impacts Analysis) that there is a reasonable probability that the project would have more than a moderate visual impact in the project area; for example if it would substantially alter the visual quality along a Scenic Byway, despite any proposed mitigation. For an EA project, a Visual Impacts Discipline Report is needed when it is determined that the project may have more than a moderate visual impact, but further analysis is needed to establish whether there is a reasonable probability that such an effect will occur.

WSDOT's checklist for preparing Visual Impacts Discipline Reports is in **Exhibit 459-1**. The checklist identifies the criteria to be used and guidelines for describing the affected environment and impacts from the perspective of the

views from the road and the view of the road under different alternatives. The report includes mitigation measures and a discussion of impacts during construction. **Exhibit 459-1** includes a rating scale for assessing visual quality and a matrix for comparing existing and future views under different alternatives. For the most current version of the checklist, see:

http://www.wsdot.wa.gov/

Click on Search, then Site Index, then R, then Roadside and Site Development, then Visual Impact Assessment for Highway Projects Discipline Report Environmental Checklist.

Or by direct link:

http://www.wsdot.wa.gov/eesc/design/roadside/default.htm

(2) WSDOT GIS Workbench

Useful information may be obtained from the WSDOT GIS Workbench, a GIS interface for internal WSDOT users only. It has numerous layers of environmental and natural resource management data. WSDOT works with federal, state, and local agencies to maintain a collection of the best available data for statewide environmental analysis. Current data sets relevant to visual quality include roadside landscape classifications and the Columbia River Gorge National Scenic Area. For information on how to access the GIS Workbench, see:

http://www.wsdot.wa.gov/environment/envinfo/default.htm

For a list of current data sets, see WSDOT's web site:

http://www.wsdot.wa.gov/

Click on Maps & Data, then GIS Data Distribution Catalog.

Or by direct link:

http://www.wsdot.wa.gov/mapsdata/geodatacatalog/default.htm

(3) FHWA Technical Advisory

FHWA Technical Advisory T 6640.8A (October 1987) gives brief guidelines for preparing environmental documents, including sections on visual impacts. When there is a potential for visual impacts, the draft EIS should identify the impacts to the existing visual resource, the relationship of the impacts to potential viewers of and from the project, as well as measures to avoid, minimize, or reduce the adverse impacts. The draft EIS should explain the consideration given to design quality, art, and architecture in project planning. These values may be particularly important for facilities located in visually sensitive urban or rural settings. When a proposed project will include features associated with design quality, art or architecture, the draft EIS should be circulated to officially designated State and local arts councils and, as appropriate, other organizations with an interest in design, art, and architecture. The final EIS should identify any proposed mitigation for the preferred alternative.

The Technical Advisory is online via FHWA's home page:

http://www.fhwa.dot.gov/

Click on Legislation and Regulations, then FHWA Directives and Policy Memorandums, then FHWA Technical Advisories, then T6640.8A.

Or by direct link:

http://www.fhwa.dot.gov/legsregs/directives/techadvs/t664008a.htm

(4) FHWA Visual Impact Assessment Guidance

FHWA has developed a methodology for assessing the visual impacts of road projects for NEPA and Section 4(f) evaluations. An FHWA field guide, *Visual Impact Assessment for Highways* (DOT FHWA-HI-88-054), developed with assistance from WSDOT and other state transportation agencies, gives detailed guidance on scoping, performing, and documenting the visual impact assessment. It also includes background on legal requirements, a scoping questionnaire for visual assessments, and guidance on graphic techniques for displaying the visual effects of highways. Available online at:

http://www.wsdot.wa.gov/eesc/design/roadside/pdf/fhwavia.pdf

Another document, *Environmental Impact Statement: Visual Impact Discussion*, describes how an EIS should review the findings of a visual impact assessment; describe the landscape and visual character of the affected environment; and describe the environmental consequences, including visually sensitive locations for each alternative, the visual character of the proposed project, visual effects, and mitigation.

An FHWA memorandum (August 18, 1986) provides additional guidance on aesthetics and visual quality. The latter two documents are available in the Environmental Guidebook on FHWA's web site:

http://www.fhwa.dot.gov/

Click on FHWA Programs, then Environment, then Environmental Guidebook, then Built and Social Environment, then Aesthetics.

Or by direct link:

http://environment.fhwa.dot.gov/guidebook/chapters/v2ch1.htm

(5) Other FHWA Guidance

FHWA's supplementary guidance and procedures for EIS processing, in an Appendix to FHPM 7-7-2 (1981) states that the visual impact assessment should include an assessment of the temporary and permanent visual impacts of the proposed action. "Where relevant, the EIS should document the consideration given to design quality, art and architecture in the project planning. These values may be important for facilities located in sensitive urban settings."

DOT Notice 5610.1C, Attachment 2, Guidance on Format and Content of Environmental Documents, includes the following statement: "This notice supplements a Secretarial decision of 7-31-77, as recommended by the DOT Task Force on Design, Art and Architecture in Transportation, that, where relevant, the Department will require consideration of design quality to be reflected in environmental impact statements (EISs). This notice is to provide

further impetus to a constructive blending of esthetics and function… Design quality considerations are relevant and are to be documented in EISs where such facilities as … major urban highways are in sensitive locations (such as parks or historic districts), or where public use areas are involved. These examples are not all-inclusive."

In addition, many other documents related to visual quality are available in the Environmental Guidebook on FHWA's web site:

http://www.fhwa.dot.gov/

Click on FHWA Programs, then Environment, then Environmental Guidebook, then Index, then Aesthetics, Corridor Preservation, Scenic Byways, or Transportation Enhancements.

Or by direct link:

http://environment.fhwa.dot.gov/guidebook/index.htm

459.06 Permits and Approvals

None required.

459.07 Non-Road Project Requirements

Ferry, rail, aviation, and non-motorized transport systems are generally subject to the same policies, procedures, and permits that apply to road projects.

Environmental documentation for ferry projects must address aesthetics and visual issues as part of the SSDP, including specific details about height of structures, use, and potential impacts.

459.08 Exhibits

Exhibit 459-1 – Visual Impacts Discipline Report Checklist.

Washington State Department of Transportation

Discipline Report Checklist
Visual Impacts

Project Name: _____ Job Number: _____

Contact Name: _____

Date Received: _____ Date Reviewed: _____ Reviewer: _____

(SAT = Satisfactory; INC = Incomplete; MIS = Missing; N/A = Not Applicable)

Answers are required for questions which have no N/A box.

I. Study Methodology

SAT	INC	MIS	N/A		
☐	☐	☐	☐	A.	Methodology identified, documented, and professionally recognized.
☐	☐	☐	☐	B.	Methodology is repeatable.
☐	☐	☐	☐	C.	Methodology prevents bias.
☐	☐	☐	☐	D.	Methodology is understandable with minimal training.

II. Criteria Used

SAT	INC	MIS	N/A		
☐	☐	☐	☐	A.	Vividness- the memorability of landscape components.
☐	☐	☐	☐	B.	Intactness- the integration of natural and human components.
☐	☐	☐	☐	C.	Unity- the compositional harmony of the viewshed.
☐	☐	☐	☐	D.	Viewer position noted (inferior, normal, superior).
☐	☐	☐	☐	E.	Viewer groups identified.
☐	☐	☐	☐	F.	Viewer exposure identified.
☐	☐	☐	☐	G.	Viewer sensitivity identified.
☐	☐	☐	☐	H.	Frequency of viewer exposure identified.
☐	☐	☐	☐	I.	Duration of view identified.
☐	☐	☐	☐	J.	Numbers of viewers identified.

III. Affected Environment

SAT	INC	MIS	N/A		
☐	☐	☐	☐	A.	Landscape units identified within project limits.
☐	☐	☐	☐	B.	Visual impacts discussed for each alternative.

IV. Views

SAT	INC	MIS	N/A		
☐	☐	☐	☐	A.	Representative viewpoints established in each landscape unit.
☐	☐	☐	☐	B.	Views toward the project analyzed.
☐	☐	☐	☐	C.	Views from the project analyzed.
☐	☐	☐	☐	D.	Existing views analyzed.
☐	☐	☐	☐	E.	Proposed views analyzed.
☐	☐	☐	☐	F.	Light and glare effects analyzed.
☐	☐	☐	☐	G.	Quantitative analysis performed on all viewpoints.
☐	☐	☐	☐	H.	Quantitative impacts analysis matrix included in report.
					Distance zones discussed:
☐	☐	☐	☐	I.	Foreground
☐	☐	☐	☐	J.	Middle ground
☐	☐	☐	☐	K.	Background
					View elements discussed:
☐	☐	☐	☐	L.	Landform
☐	☐	☐	☐	M.	Water
☐	☐	☐	☐	N.	Vegetation
☐	☐	☐	☐	O.	Human-made development

V. Narrative

SAT	INC	MIS	N/A		
☐	☐	☐	☐	A.	Does the narrative correspond to the qualitative analysis?
☐	☐	☐	☐	B.	Narrative discusses impacts.
☐	☐	☐	☐	C.	Narrative discusses mitigation.
☐	☐	☐	☐	D.	Construction activity impacts discussed.

VI. Mitigation

SAT	INC	MIS	N/A		
☐	☐	☐	☐	A.	Mitigation for impacts discussed.
☐	☐	☐	☐	B.	Solutions presented are achievable.
☐	☐	☐	☐	C.	Solutions presented are solid and binding.

Visual Impacts Assessment

Visual Quality Criteria Rating Scale

	Vividness ***Landform*** ***Waterform*** ***Vegetative*** ***Human-made***		**Intactness** ***Human Environment***
7	Very High	7	None
6	High	6	Little
5	Moderately High	5	Some
4	Average	4	Average
3	Moderately Low	3	Moderately High
2	Low	2	High
1	Very Low	1	Very High

	Unity		**Intactness** ***Encroachment***
7	Very High	7	None
6	High	6	Few
5	Moderately High	5	Some
4	Average	4	Average
3	Moderately Low	3	Several
2	Low	2	Many
1	Very Low	1	Very Many

Visual Impacts Analysis Matrix														
				Existing						Proposed				
Viewpoint				1	2	3	4	5		1	2	3	4	5
View Orientation														
View Distance		Foreground												
		Middle ground												
		Background												
Viewer Position		Inferior												
		Level												
		Superior												
Vividness		Landform												
		Waterform												
		Vegetative												
		Human-made												
		Average												
Intactness		Development												
		Encroachment												
		Average												
Unity		Overall												
Total Visual Quality														